"Technical Support for OAQPS Budget, Website, and Public Access Applications"

I.   **TITLE**

"Technical Support for OAQPS Budget, Website, and Public Access Applications"

II.   **PURPOSE**

The purpose of this requirement is to obtain support for ongoing operations, maintenance, updates and improvements to the Office of Air Quality Planning and Standards (OAQPS) budget system, website, and public access applications.

III. **BACKGROUND**

OAQPS is comprised of five Divisions. Each Division is responsible for separate (yet interrelated) areas of the OAQPS mission.

A.   **Budget Integration Database System/Program Tracking Tool (BIDS/PTT)**

OAQPS has a business office, Central Operations and Resources (CORE), which provides all OAQPS administrative support services, including budget management and accountability. Under the existing contract, CORE developed and implemented BIDS/PTT to automate project management, funding, and program accountability.

Examples of BIDS/PTT data includes contract award and initial funding, all subsequent funding actions, exercise of optional periods or quantities, invoice payments or suspensions, work assignments, work plans, government cost estimates, and funding limitations. BIDS/PTT tracks each project as it moves up the approval chain, being refined and coordinated with other projects before and after management approval.

BIDS/PTT consists of five modules, which together follow a step-by-step process for documenting the initiation, approval, funding, completion and effectiveness of every OAQPS project. The five modules are:

1.   BIDS - Project initiation, refinement and approval

2.   PTT - Project funding and tracking

3.   Contracts - Project funding and tracking*

4.   Work Assignment (WA) - Project funding and tracking*

5.   Invoice - Project funding and tracking*

* Note: for contracted tasks only

BIDS includes access restrictions for individuals depending on their position or role. The reporting section allows for standard and ad-hoc reporting capabilities.

The BIDS/PTT server is housed at the EPA National Computer Center (NCC) in RTP, NC and is located behind the EPA firewall. User access is through the EPA intranet. Server access is via EPA's virtual private network (VPN) and coordinated through OAQPS systems administrators. BIDS/PTT was developed with a Cold Fusion front end, using Access as a database. BIDS/PTT is a mature system, thus major new development or enhancements are not expected.

B.   Website and Public Access Applications

The OAQPS Outreach and Information Division (OID) develops and facilitates access to OAQPS data and data products using internet applications. OID develops and maintains multiple websites and web-based database applications for data submission and distribution. These include, but are not limited to:

1.   AirNow website   http://www.airnow.gov/

The AirNow website is a ColdFusion/Oracle application utilizing the FuseBox methodology to provide real-time air quality data and forecasts. The EPA, National Oceanic Atmospheric Administration (NOAA), National Park Service (NPS), tribal, state and local agencies developed the AirNow website to provide the public with easy access to national air quality information. The website offers daily Air Quality Index (AQI) forecasts as well as real-time AQI conditions for almost 600 cities across the US. This data is collected by airnowtech.org and sent to airnow.gov for public access. AirNow.gov maintains links to hundreds of state and local air quality websites, partner webcams, and Air Quality Flag Program registrations. In addition to these dynamically generated pages, there are approximately 250 page(s) of static content.

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2. Reasonably Available Control Technology (RACT)/Best Available Control Technology (BACT)/Lowest Achievable Emission Rate (LAER) Clearinghouse (RBLC) https://cfpub.epa.gov/RBLC/

   The RBLC is another ColdFusion/Oracle application, also utilizing the FuseBox methodology, to provide information on source-specific air pollution prevention (P2) and control technologies and emissions standards and guidance (i.e., regulations). The acronyms RACT, BACT and LAER refer to air pollution prevention (P2) and/or control technology requirements pursuant to various provisions of the Clean Air Act (CAA). The RBLC also includes a standalone editor software program (currently in Visual Basic and Microsoft Access) to facilitate electronic data submission by State and local agencies.

3. Other websites consist primarily of static HTML pages covering a number of topics from air data https://www.epa.gov/airdata/ to visibility https://www.epa.gov/visibility/. OID also supports Web sites for other offices in OAR, such as the Clean Air Act Advisory Committee (https://www.epa.gov/caaac/) and the Tribal Air Web site (https://www.epa.gov/tribal-air/). Most of these sites are contained within the Drupal Web Content Management System (CMS), but some sites remain in the legacy HTML 4/5 system. These sites make information and documents generated by OAQPS available to the public.

IV. STATEMENT OF WORK

Note: In accordance with Homeland Security Presidential Directive 12 (HSPD-12) background investigations shall be conducted for all Contractor and subcontractor personnel that will have access to the Local Area Network and BIDS/PTT system.

The Contractor shall perform tasks under this requirement in accordance with industry best practices (e.g., ISO-9001, Rational Unified Process (RUP)). Most tasks are expected to be performed at the Contractor's facilities through remote access using the EPA remote access portal and smart card authentication. However, by their nature, some tasks must be performed on site at the EPA facilities in RTP, NC.

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Independently and not as an agent of the Government, the Contractor shall furnish all necessary personnel, facilities, materials, equipment and supplies, not otherwise provided by the Government, to perform the work required as set forth herein.

Task 1   BIDS/PTT

The Contractor shall operate maintain, update and improve BIDS/PTT in a manner that ensures ninety-nine (99) percent system availability (this is measured in time system is available versus time in a given year). Support includes, but is not limited to, the following:

A.   Modify BIDS/PTT program code as required;

B.   Perform necessary software version upgrades;

C.   Independently seek to identify solutions to problems and bring them to the Project Officer's attention. If the TOPO directs, implement the solution;

D.   Explore suggested user enhancements and bring them to the Project Officer's attention. If the TOPO directs, implement the enhancement(s);

E.   Conduct quarterly tests on all aspects of BIDS/PTT operations;

F.   Perform risk assessments in a manner that complies with EPA's regulations and OMB's requirements;

G.   Regularly consult with OAQPS information technology staff, seeking to optimize BIDS/PTT operation;

H.   Implement security procedures to comprehensively address platform security, data integrity, policy compliance and operational security procedures;

I.   Coordinate with server systems administrators on storage and backup capabilities;

J.   Monitor server availability and implement fault recovery; and,

K.   Maintain all technical documentation, revising as necessary ensure that the documentation is consistent with the actual state of the BIDS/PTT system.

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Reporting Requirements

The Contractor shall prepare and submit a monthly progress report indicating the tasks performed, hours worked, expenditures and issues (including risks and potential risks) during the reporting period. The monthly reports shall indicate activity during the reporting period and planned activity for the next reporting period

Reports shall also include a complete description of any problem(s) encountered. The description shall include the date reported or detected, the corrective action required, the date of correction and time required to correct each problem.

The report shall list all outstanding issues (technical, contractual or otherwise) in a separately labelled section.

Task 2   Website and Public Access Applications

The Contractor shall provide for the operation, maintenance, management and enhancement of various aspects of OAQPS Intranet/Internet applications and websites. This includes assistance in the overall development programming, operations programming, maintenance programming, graphic design and customer/user support for OAQPS internet data distribution and website development. Required skills include, but are not limited to, HTML, CFML, Javascript, JQuery, FuseBox, ColdFusion, Oracle, Drupal, Visual Basic, SharePoint and web graphics. All mobile device application technologies (e.g., Bootstrap, ect.) and web design shall be in accordance with EPA web standards. The Contractor shall provide the following application specific tasks:

A.   AirNow website

    i.   Modify program code as required;

    ii.   Perform necessary software upgrades;

    iii.   Independently identify solutions to problems with the AirNow web application, and implement solutions at the direction of the TOPO;

      iv.   Recommend enhancements and improvements to the AirNow web application, and implement enhancements and improvements at the direction of the TOPO;

      v.   Maintain Cold Fusion administrative module; and,

      vi.   Coordinate with the NCC Coldfusion administrators to resolve issues.

B.   RBLC website

      i.   Update and maintain the RBLC web application and RBLC software products;

      ii.   Develop new RBLC web and standalone software tools and products to support the RBLC mission;

      iii.   Recommend enhancements and improvements to the RBLC web application and stand-alone editor, and implement enhancements and improvements at the direction of the TOPO; and,

      iv.   Provide customized retrievals from RBLC as directed by the TOPO. Customized retrievals are based on information in RBLC but presented in a non-standard format. They may be required for a specific source or process type, geographical area, or other similar requirement. (Approximately ten (10) customized retrievals are anticipated per calendar year.)

C.   Static Topical websites

      i.   Update existing web sites and develop new sites in the Drupal web CMS at the direction of the TOPO;

      ii.   Update existing web sites in the legacy html 4/5 system, or transform the content to the Drupal web CMS, as directed by the TOPO; and,

      iii.   Support the migration of documents posted in the legacy system for time-sensitive and/or security-sensitive announcements into Drupal after the initial posting and subsequent revision window (typically, one week) has closed.

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Reporting Requirements

The Contractor shall prepare and submit monthly progress reports indicating the tasks performed, hours worked, expenditures and issues (including risks and potential risks) during the reporting period. The monthly reports shall indicate activity during the reporting period, planned activity for the next reporting period and any problems encountered.

i.   Weekly Activity Report for the previous week's activities due each Monday by noon for the previous week.

ii. Monthly meeting and minutes; monthly meeting, as TOPO directed. Minutes within five business days.

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Job Descriptions and expected Experience/Education

Job Title	Software Engineer II
Responsibility	The Software Engineer II serves as the senior technical expert on complex and challenging information technology projects. The Software Engineer II may be assigned as team leader on tasks of various technical disciplines or may work alone or as part of a team of Software Engineers, with responsibility for design and development of computer software applications and/or database systems, evaluation of computer hardware and software, planning for communications and information requirements, system test, and system security. The Software Engineer II provides leadership during early planning and conceptual stages of large, complex projects. The Senior Software Engineer may participate in any phase of major projects from problem definition through problem resolution, and from feasibility analysis through project implementation. The Software Engineer II frequently supports several tasks concurrently and evaluates problems of work-flow, organization, and planning, and develops appropriate corrective actions and prepares and performs presentations at technical interchange meetings and project design reviews.
Minimum/General Experience	Six (6) years of technical experience of increasing responsibility providing software engineering, analysis, and developing complex software models and applications across multiple hardware and software platforms. Demonstrates ability to work independently based on the strategic plan or under general direction. Must be able to effectively employ contemporary project management tools.
Minimum Education	Bachelor's degree in Computer Science, Information Systems, Engineering, Math, Business, or other related scientific or technical discipline.
Job Title	Project Manager
Responsibility	Project Manager manages projects and performances on a daily basis, provides overall direction to all project level activities and personnel, solves complex technical, administrative, and managerial problems, responsible for interfacing with customers and technical personnel, preparing reports, delivering presentations, and participating in meetings, confers with project staffs to outline work plans and to assign duties and scope of authority, directs the completion of tasks within estimated time frames and budget constraints.
Minimum/ General Experience	Six (6) years of technical experiences in managing system integration, design, development, testing, implementation, operation, and/or program management of complex computer systems and/or computer facilities operation. Requires competence in all phases of program management for complex computer systems. Requires knowledge of available hardware, related system software, system integration techniques, network management, and project management practices. Demonstrates ability to work independently based on the strategic plan or under general direction. Must be able to effectively employ contemporary project management tools.
Minimum Education	Master/Bachelor's degree in Computer Science, Information Systems, Engineering, Mathematics, Business, or other related scientific or technical discipline. Project Management Professional (PMP) certification.

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Job Title	Information Systems Analyst II
Responsibility	Systems Analyst II implements computer system requirements by defining and analyzing system problems; designing and testing standards and solutions. Performs analysis and makes recommendations in areas that require a high level of technical competency. Designs data bases and data dictionary criteria. Performs a variety of complex programming tasks, such as designing, documenting, and coding program logic. Provides technical training, guidance, and resource support for end users and Departmental staff. Provides application support and enhancements to existing applications. Defines system requirements, priorities, and viable alternatives. Coordinates the efforts of staff to locate, assess, install, test, and maintain computer software systems. Coordinates conversions and upgrades to vendor systems. Performs as a project lead and directs systems analysts. Provides leadership and coordination on projects assigned to systems analysts. In addition to all accountabilities of the Systems Analyst position, assumes greater leadership role, utilizing broader knowledge and high level technical skills. Assists in developing user documentation and departmental policies and procedures that impact the use of application systems. Continues to develop professional skills in the information systems and health care fields through trade magazines, manuals, seminars, and courses. Assist sin training analyst staff. Performs complex Senior Systems Analyst duties on a regular and continuous basis. Performs other related duties as assigned.
Minimum/ General Experience	Five (5) years of technical experiences in systems analysis and/or programming required with project management or leadership responsibilities. Must have ability to exercise independent judgment in planning, organizing, and performing systems analyst tasks. Some independent judgment required in setting priorities of tasks among multiple assigned projects. Must have ability to communicate, motivate, and organize projects among a broad spectrum of personnel throughout the network, frequently under deadline pressure. Knowledge of information systems, including some familiarity with financial /business applications, clinical applications, managed care applications, or al, sufficient to use and support on-line, interactive applications based on equipment ranging from large-scale minicomputers to microcomputers, and to plan and perform medium- to large-scale computer projects.
Minimum Education	Master/Bachelor's degree in Computer Science, Information Systems, Engineering, Mathematics, Business, or other related scientific or technical discipline.